The initial experiment with the Shelhigh valve in a self-expandable conduit was performed in sheep by us and the results published as a book chapter in *Transcatheter Valve Repair* by Hijazi, Bonhoeffer, Feldman, and Ruiz.[5] In this animal experiment, the Shelhigh valve that had been placed in the self-expanding Cook Z stent (Cook Inc, Bloomington, Ind) was placed with the help of a delivery gun into the right ventricular outflow tract of sheep. The approach was perventricular and no cardiopulmonary bypass was used. The clinical application of this approach followed this animal experiment.

I was astonished that none of our animal work with the Shelhigh valve or the perventricular approach was acknowledged by Berdat and coworkers in the case report.

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Reply to the Editor:

We greatly welcome the valuable comments from our colleague Dr Amin and his important contribution to the development of this technique.[1] Due to space restrictions for published articles, we could not go into details regarding the development and historical background of this new device. We therefore greatly appreciate that this information is still presented to the readership. We would like to emphasize, however, that our group was the first to clinically implant the Shelhigh injectable pulmonary valve, although Schreiber and colleagues[2] were the first to publish their experience.

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Inflow occlusion in the era of modern cardiac surgery

To the Editor:

We read with interest the article titled "Inflow Occlusion Pulmonary Embolectomy in the Modern Era of Cardiac Surgery" by Bobadilla and associates.[1] The following points are not clear from the contents of the article.

First, how was the core temperature lowered? Was it lowered with a cooling blanket or just by dropping the temperature of the operating theater, and how long did it take for the temperature to drop to 32°C?

Second, for what duration was the inflow occluded?

Absence of structural or functional damage to the brain has been noted during circulatory arrest. Probability of safe circulatory arrest according to degree of hypothermia is shown in Table 1.

There are a number of situations wherein familiarity with inflow occlusion technique may be of use, such as pulmonary valvotomy, aortic valvotomy, and atrial septectomy. Patients who have pulmonary atresia with intact septum can undergo relief of right ventricular outflow tract obstruction with a patch, pulmonary valvotomy, or a Brock procedure. Other procedures that have been performed safely by this technique are tricuspid valvectomy, emergency perforation of a ventricular septal patch, obtaining full thickness myocardial biopsy, and repair of penetrating wounds of the heart.[2]

TABLE 1. Probability of safe circulatory arrest according to hyperthermia

Temperature (°C)	Duration of safe circulatory arrest (min)
37	3
28	10
18	45-60

Revised from Kouchoukos NT, Blackstone EH, Doty DB, Hanley FL, Karp RB. Hypothermia, circulatory arrest and cardiopulmonary bypass. In: Kirklin/Barratt-Boyes Cardiac Surgery, 3rd ed. Philadelphia: Churchill Livingstone; 2003. p. 80 (Table 2.9A). Reprinted with permission from Elsevier, Inc.

Undoubtedly, this technique represents a considerable cost savings over the same procedures performed with cardiopulmonary bypass. In the current economic era of limited health care budget, any surgical technique that provides equivalent results is to be preferred over more expensive alternatives.

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Reply to the Editor:

We graciously thank the authors of this letter to the editor for supplying further